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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,932

11/18/2003

Francis R. Corrado

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05/24/2006

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EXAMINER

VERBRUGGE, KEVIN

ART UNIT

PAPER NUMBER

2189

DATE MAILED: 05/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/716,932	Applicant(s) CORRADO ET AL.	
	Examiner Kevin Verbrugge	Art Unit 2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 1,3,9,11,17,19,25 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1, 3, 9, 11, 17, 19, 25, and 27 are objected to because of the following informalities:

In claim 1, line 6, "expensive" should be changed to --inexpensive--.

In claim 3, line 3, "at least at in part" should be changed to --at least in part--.

In claim 9, line 8, "expensive" should be changed to --inexpensive--.

In claim 11, line 3, "at least at in part" should be changed to --at least in part--.

In claim 17, line 8, "expensive" should be changed to --inexpensive--.

In claim 19, line 3, "at least at in part" should be changed to --at least in part--.

In claim 25, line 10, "expensive" should be changed to --inexpensive--.

In claim 27, line 2, "comprise" should be changed to --comprises--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,347,359 to Smith et al.

Regarding claims 1, 2, 9, 10, 17, 18, and 25, Smith discloses a method for reconfiguration of RAID data storage systems (title). In his disclosure he mentions reconfiguring a RAID system of a first level to a RAID system of a second level, clearly anticipating the claimed language of issuing read requests and write requests since the reconfiguration involves lots of read and write requests.

Furthermore, he discloses the claimed limitation of issuing an access request while the reading and writing is occurring at column 2, lines 48-54, where he teaches that "Data migration is an alternative to the backup and restore method of data movement. Fundamentally, data migration involves copying each data bit from its pre-reconfiguration location to its post-reconfiguration location. During data migration, access to the RAID system may be maintained. In this way, a serious limitation of the backup and restore method of data movement is avoided."

Regarding claims 3, 4, 11, 12, 19, and 20, Smith explicitly shows parity data in Fig. 1 and mentions it throughout his specification. Parity was a well-known part of most RAID systems.

Regarding claims 5, 13, and 21, Smith's storage devices comprise the claimed mass storage devices.

Regarding claims 6-8, 14-16, and 22-24, the claimed steps and limitations are part of Smith's reconfiguration technique.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over 6,347,359 to Smith et al.

The elements in the claims are not explicitly shown or discussed by Smith but are obvious parts of a data processing system that would include the items shown and discussed by Smith. The claimed elements are basic circuitry included in data processing systems to accomplish the various data processing tasks of the data processing system and therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include them in a data processing system using Smith's device.

Conclusion

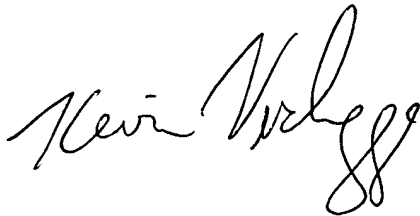
Any inquiry concerning this Office action should be directed to the Examiner by phone at (571) 272-4214.

Any response to this Office action should be labeled appropriately (including serial number, Art Unit 2189, and type of response) and mailed to Commissioner for

Art Unit: 2189

Patents, P.O. Box 1450, Alexandria, VA 22313-1450, hand-carried or delivered to the Customer Service Window at the Randolph Building, 401 Dulany Street, Alexandria, VA 22313, or faxed to (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

A handwritten signature in black ink, appearing to read "Kevin Verbrugge". The signature is fluid and cursive, with the first name "Kevin" and last name "Verbrugge" clearly distinguishable.

Kevin Verbrugge
Primary Examiner
Art Unit 2189